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10/789,902	02/27/2004	Michael P. Spertus	5760-20100	9301

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EXAMINER

VERDI, KIMBLEANN C

ART UNIT	PAPER NUMBER
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2194

MAIL DATE	DELIVERY MODE
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02/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/789,902

Applicant(s)

SPERTUS ET AL.

Examiner

KimbleAnn Verdi

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 and 09 November 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to the Application filed on November 9, 2007. Claims 1-28 are pending in the current application. Applicants' arguments have been carefully considered, but are moot in view of the new ground(s) of rejection. All previously outstanding objections and rejections to the Applicant's disclosure and claims not contained in this Action have been respectfully withdrawn by the Examiner hereto.

Response to Amendment

1. Amendment to the drawings and specification overcomes the previous objection to the drawings and specification.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 9, 14, 19, 20, and 23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 14-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 14-18, a "system for use in a distributed management framework" is being recited; however, it appears that a system for use in a distributed management framework would reasonably be interpreted by one of ordinary skill in the art as software, per se.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-19 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,748, 555 B1 to Teegan et al (hereinafter Teegan) in view of United States Patent Application Publication 2002/0152455 A1 to Hundt et al. (hereinafter Hundt).

7. As to claim 1, Teegan teaches the invention substantially as claimed including a method for use in a distributed management framework comprising a plurality of applications, wherein each of the plurality of applications is configured to make function calls to standard programming functions, the method comprising:

intercepting the function calls to the standard programming functions made by the plurality of applications (Fig. 3, col. 10, lines 2-5, step 406, Fig. 6, col. 12, lines 38-39).

Teegan does not explicitly disclose routing the function calls to alternative implementations of the standard programming; and

using the alternative implementations of the standard programming functions to collect availability metrics for the plurality of applications.

However Hundt teaches routing the function calls to alternative implementations of the standard programming (paragraphs [0018] and [0025]-[0026]); and

using the alternative implementations of the standard programming functions to collect availability metrics for the plurality of applications (paragraphs [0005] and [0017]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the interceptor of Teegan with the teachings of an instrumented function from Hundt because this feature would have provided a mechanism for performing dynamic instrumentation by creating instrumented versions of functions when the functions are invoked, and thereafter executing the instrumented functions instead of the original functions (paragraph [0017] of Hundt).

8. As to claim 2, Teegan teaches the method of claim 1, wherein the standard programming functions comprise memory functions (col. 15, lines 4-7).

9. As to claim 3, Teegan teaches the method of claim 1, wherein the intercepting the function calls comprises intercepting the function calls in a production environment (col. 19, lines 24-26).

10. As to claim 4, Teegan teaches the method of claim 1, further comprising:

inserting agents into the plurality of applications at application launch (step 906, Fig. 16, col. 26, lines 39-45);

wherein the agents are configured to perform the intercepting the function calls to the standard programming functions (col. 26, lines 48-51, step 910, Fig. 16).

11. As to claim 5, Teegan teaches the method of claim 1, further comprising:

modifying program code of at least one of the applications to enable the intercepting the function calls to the standard programming functions (col. 3, lines 19-23).

12. As to claim 6, Teegan teaches the method of claim 1, further comprising:

using the availability metrics for performance management of the plurality of applications in the distributed management framework (col. 15, lines 49-67 and col. 16, lines 1-5).

13. As to claim 7, Teegan teaches the method of claim 1, further comprising:

configuring the distributed management framework to monitor a subset of the plurality of applications (col. 11, lines 12-14, and col. 16, lines 6-9, col. 26).

14. As to claim 8, Teegan teaches the method of claim 1, further comprising:

aggregating the availability metrics for the plurality of applications at a console for performance management (Fig. 11, col. 15, lines 50-55).

15. As to claim 9, this claim is rejected for the same reasons as claim 1, see the rejection to claim 1 above.

16. As to claims 10-12, these claims are rejected for the same reasons as claims 3-5 respectively, see the rejections to claims 3-5 above.

17. As to claim 13, this claim is rejected for the same reasons as claim 8, see the rejection to claim 8 above.

18. As to claim 14, this claim is rejected for the same reasons as claim 1, see the rejection to claim 1 above.

19. As to claims 15-17, these claims are rejected for the same reasons as claims 3-5 respectively, see the rejections to claims 3-5 above.

20. As to claim 18, this claim is rejected for the same reasons as claim 8, see the rejection to claim 8 above.

21. As to claim 19, this claim is rejected for the same reasons as claim 1, see the rejection to claim 1 above.

22. As to claim 23, Teegan teaches the invention substantially as claimed including a method for use in a distributed management framework comprising a plurality of applications, wherein the plurality of applications comprise at least one monitored application, the method comprising:

automatically generating output in response to a triggering event in the execution of the monitored application (step 408, Fig. 6, col. 12, lines 52-62), wherein the output comprises an execution history for the monitored application (col. 3, lines 56-57).

Teegan does not explicitly disclose modifying program code of the monitored application to include additional instructions; and

using the additional instructions in the monitored application to monitor execution of the monitored application in a production environment.

However Hundt teaches modifying program code of the monitored application to include additional instructions (paragraph [0018]); and

using the additional instructions in the monitored application to monitor execution of the monitored application in a production environment (paragraph [0017]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the interceptor of Teegan with the teachings of an instrumented function from Hundt because this feature would have provided a mechanism for performing dynamic instrumentation by creating instrumented versions of functions when the functions are invoked, and thereafter executing the instrumented functions instead of the original functions (paragraph [0017] of Hundt).

23. As to claim 24, Teegan teaches the method of claim 23, wherein the using the additional instructions in the monitored application to monitor execution of the monitored application comprises recording an execution trace of the execution of the monitored application on a per-thread basis (col. 3, lines 56-57 and col. 4, lines 23-24).

24. As to claim 25, Teegan teaches the method of claim 23, wherein the using the additional instructions in the monitored application to monitor execution of the monitored application comprises recording entries to and exits from function calls during execution of the monitored application (col. 12, lines 38-40, 46-51, and col. 17, lines 29-36).

25. As to claim 26, Teegan teaches the method of claim 23, wherein the using the additional instructions in the monitored application to monitor execution of the monitored application comprises capturing exceptional control transfers during execution of the monitored application (col. 18, lines 6-11).

26. As to claim 27, Teegan teaches the method of claim 23, wherein the using the additional instructions in the monitored application to monitor execution of the monitored application comprises tracking creation of data objects during execution of the monitored application (col. 18, lines 6-11).

27. As to claim 28, Teegan teaches the method of claim 27, wherein the using the additional instructions in the monitored application to monitor execution of the monitored application comprises recording metrics for the creation of data objects (col. 19, lines 65-67 and col. 20, lines 1-3).

28. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,748, 555 B1 to Teegan et al (hereinafter Teegan) in view of United States Patent Application Publication 2003/0028680 A1 to Jin.

29. As to claim 20, Teegan teaches the invention substantially as claimed including a method for use in a distributed management framework comprising a plurality of applications, the method comprising:

using the manager threads to monitor execution of the plurality of applications in a production environment (col. 10, lines 1-34, Fig. 3).

Teegan does not explicitly disclose starting a manager thread inside each of the plurality of applications.

However Jin teaches starting a manager thread inside each of the plurality of applications (paragraph [0021]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the wrapper of Teegan with the teachings of a Watch Dog from Jin because this feature would have provided a mechanism which monitors the performance of essential application programs in the application environment to detect, and initiate recovery from, a major application failure (paragraph [0012] of Jin).

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30. As to claim 21, Teegan teaches the method of claim 20, wherein the plurality of applications comprises a first application (col. 12, lines 2-5), and wherein the using the manager threads to monitor execution of the plurality of applications comprises using the manager thread in the first application to determine that the first application is hung (col. 12, lines 19-22).

31. As to claim 22, Teegan teaches the method of claim 20, further comprising:
collecting availability metrics for the plurality of applications using internal monitoring of the plurality of applications (steps 420-424, Fig. 7, col. 12, lines 51-56);
and

using the manager threads to trigger output of the availability metrics to an external recipient (step 408, Fig. 6, col. 12, lines 52-62).

Conclusion

32. The prior art made of record on the accompanying PTO-892 and not relied upon, is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571) 270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 30, 2008
KV


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER